

Title (en)
DIGITAL SIGNAL PROCESSOR

Publication
EP 0086570 B1 19900314 (EN)

Application
EP 83300311 A 19830121

Priority
GB 8204382 A 19820215

Abstract (en)
[origin: EP0086570A2] A digital signal processor has timing means (5, 8) for providing a succession of sample intervals (ut) in which an incoming digital signals may have discrete values (e(o)). A serial delay (40, 52) such as a multi or single bit shift register progressively delays a digital signal giving a delayed signal (e(m)). An arithmetic section (36) has a plurality of elements (41, 54) such as multi or single bit multipliers, or difference squares. Each element operates on non delayed signals (e(o)) and signals (e(m)) from an associated stage of the delay (40, 52). An accumulating store (37) has a plurality of channels (45, 57) each associated with an arithmetic element (41, 54). Collectively the channels (45, 57) provide the required mathematical operation, auto or cross correlation function or structure function calculation. The interval of delay between channels (45, 57) is arranged to increase substantially geometrically e.g. by V2. The overall delay increase may be variable and geometric although increases between adjacent channels (45, 57) may be approximations to a geometric increase. A variable clip level circuit (53) may be incorporated into the input to the serial delay (52). In one configuration the delay intervals may be adjusted to be the same between each channel.

IPC 1-7
G06F 15/336

IPC 8 full level
G06F 17/15 (2006.01)

CPC (source: EP US)
G06F 17/15 (2013.01 - EP US)

Citation (examination)

- GB 1290336 A 19720927
- H.Z. Cummins and E.R. Pike, "Photon Correlation Spectroscopy and Velocimetry", Plenum Press 1977, pages 550-553
- J. Phys. A: Math. Gen., Vol 11, No. 9, 1978, The Institute of Physics, GB, pages 1729-1745.
- Applied Physics, 24, 1981, Springer Verlag, pages 323-329.

Designated contracting state (EPC)
DE FR NL

DOCDB simple family (publication)
EP 0086570 A2 19830824; EP 0086570 A3 19870513; EP 0086570 B1 19900314; DE 3381326 D1 19900419; GB 2115192 A 19830901; GB 2115192 B 19860108; GB 8303620 D0 19830316; JP H0236025 B2 19900815; JP S58151676 A 19830908; US 4593378 A 19860603

DOCDB simple family (application)
EP 83300311 A 19830121; DE 3381326 T 19830121; GB 8303620 A 19830209; JP 2222783 A 19830215; US 46631383 A 19830214